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EXAMINER
TRAN, HENRY N

ART UNIT	PAPER NUMBER
2674	18

DATE MAILED: 11/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/468,581	MINAMI ET AL.	
	Examiner	Art Unit	
	HENRY N. TRAN	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 3-10,13-15 and 17-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 3-10,13-15 and 17-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 20 December 1999 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

This Office action is in response to the applicant's amendment received 08/02/03 (Paper No. 17). The amendments to the claims have been entered; and applicant's remarks were considered, with the results set forth as following.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 3, 9-10, 13, 15, and 17-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Milner et al (U.S. Patent 6,339,410, hereinafter referred to as "Milner") in view of Gouko (U.S. Patent 6,222,507).
3. Regarding claim 3, Milner teaches a first display 42 having a display screen; a second display 30 having a display screen 32; a supporting mechanism 34, 35, 36, 40, 60, 62, 64, 66, 68, 70 and 72, which is mounted on an outside portion of the first display device 42, and supports the second display device 30 rotatable about a first axis, which is parallel with a horizontal direction of the display screen of the first display device 42, and a second axis, which is parallel with a vertical direction of the display screen of the first display device 42; wherein the supporting mechanism includes a first supporting member 34, 35, 36, 40, 62, 64, 66, and 68, which supports the second display device 30 rotatably about the first and second axes, and a second support member 60, 70 and 72, which is mounted on a side portion of the first display device 42, and supports the first support member slidably in parallel with the vertical direction of the display

screen of the first display device; wherein, the first support member includes an arm 34, and the arm is connected to both the second display device 30 and the second support member (see figures 1 and 3; col. 9, lines 12-21, and 32-41). However, Milner does not teach the second display device 30 having a display screen smaller than the first display device. Gouko teaches a multi-monitor (a personal computer having a plurality of display panels (see col. 1, lines 5-6), comprising: a first display device **2** (Gouko says the main panel 2 as a primary display panel) having a display screen **2a** (a display surface 2a); a second display device **3** (Gouko says the sub panel 3 as a secondary display panel) having a display screen smaller than the first display device **2** (see figure 1; col. 3, lines 23-28, and line 37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Gouko in the device of Milner because this would provide an improved display system having a rotatable display device mounted to a side of another display device for conveniently and effectively displaying computer images. By this rationale, claim 3 is rejected.

4. Regarding claims 9 and 10, Milner shows the supporting mechanism is detachably mountable on the first display device 42 (see references recited above). Gouko shows the second display device **3** having a display screen smaller than the display screen **2a** of the first display device **2** (see figure 1). Claims 9 and 10 are dependent upon claim 3, and are therefore rejected on the same reasons set forth for claim 3, and by the reasons noted above.

5. Regarding claims 13, 15, and 17-19, which are similar to claims 3, and 3-10; wherein the first display device 42 is read on the claimed limitation “a mother monitor” (claim 13); the second display 30 is read on the claimed limitation “an auxiliary display device” (claim 17); which comprises a main body (or a housing) having a display screen 32. Milner further teaches

that the first supporting member 34, 35, 36, 40, 62, 64, 66, and 68 is slidably in a vertical direction of the second support member 60, 70, and 72 (see figure 3). Claims 13, 15, and 17-19 are therefore rejected on the same reasons set forth in claims 3 and 9-10, and by the reasons noted above.

6. Regarding claims 20-24, which includes the claimed limitations recited in claims 9, 10 and 15. Milner further shows the first end of the second support member 60, 70, and 72 is mounted on top portion of the first display device, figure 3; Claims 20-24 are dependent upon claims 3, 13, and 17, and are rejected on the same reasons set forth in claims 3, 9, 10, 13 and 17, and by the reason discussed above.

7. Claims 4, 6, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milner in view of Gouko (hereinafter referred to as "Milner-Gouko") as applied to claims 3 and 13 above, and further in view of Crossland et al (U.S. Patent 4,720,781, hereinafter referred to as "Crossland").

8. Regarding claim 4, Milner-Gouko teaches generally all except for the second display device is driven in accordance with the same operation system as the first display device. Crossland teaches a multi-monitor device having a first display device 2 and a second display device 3 (Crossland calls an office terminal having a first and a second flat panel display modules 2 and 3. See FIG. 1), and the first and the second display devices are driven by an operating system, for example MRTOS (Crossland says an operating system, e.g. MRTOS, is used to support module software driven the display modules) (see Col. 4, lines 6-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize

the teachings as taught by Crossland using the same operating system for driving display modules of a display system in the device of Milner-Gouko because this would greatly increased efficiency and flexibility (see Crossland, col. 3, lines 19-21). Claim 4 is dependent upon claim 1, and is rejected on the same reasons set forth in claim 1, and by the rational discussed above.

9. Regarding claim 6, Gouko further teaches an image signal output device (the personal computer) which outputs image signals to be displayed on the display screens of the first and the second display devices (Gouko says the personal computer provides a plurality of images to be displayed in a plurality of display panels. Accordingly, it could be said that the personal computer outputs image signals to be displayed on the display screens of the first and the second display devices) (see Col. 5, lines 29-31, and lines 41-43). Crossland shows an image signal output device 13 (a controller or a central processor 13), which outputs image signals to be displayed on the display screens of the first and the second display devices 12, 16 using display interface 11 and 15 (See FIG. 6; col. 3, lines 12-16, lines 58-63). Claim 6 is dependent upon claim 4, and is rejected on the same reasons set forth in claim 4, and by the reasons noted above.

10. Regarding claim 14, which is dependent upon claim 13, and includes the same claimed element of claims 4, and is rejected on the same reasons set forth in claims 4 and 13.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milner-Gouko in view of Crossland (hereinafter referred to as "Milner-Gouko-Crossland") as applied to claim 4 above, and further in view of Register (U.S. Patent 5,590,021).

Milner-Gouko-Crossland teaches generally all the limitation as discussed in claims 1 and

4. However, Milner-Gouko-Crossland do not teach expressly the multi-monitor further

comprising a first image signal output device which outputs an image signal representing an image to be displayed on the display screen of the first display device, and a second image signal output device which outputs an image signal representing an image to be displayed on the screen of the second display device. Register teaches a multi-monitor system (See FIG. 1) including a first image signal output device 12 (a computer 12) which outputs an image signal representing an image to be displayed on the display screen 29 of the first display device 16 (the display monitor 16), and a second image signal output device 24 (a display controller 24) which outputs an image signal representing an image to be displayed on the screen 28 of the second display device 22 (a liquid crystal display module 22) (See FIGS. 1 and 2; col. 3, lines 28-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using output devices as taught by Register in the device of Gouko-Crossland because this would provide an improved computer system having a secondary display which utilizes a minimum amount of desk space, and conveniently positioned in close proximity of the primary display of the computer for increasing productivity (See Register, col. 1, lines 52; and col. 4, lines 36-40). Claim 5 is dependent upon claims 3 and 4, and is rejected on the same reasons set forth in claims 3 and 4, and by the rational discussed above.

12. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Milner-Gouko-Crossland" as applied to claims 1, 4, and 6 above, and further in view of Fowler (U.S. Patent 6,302,612)

13. Regarding claim 7, Milner-Gouko-Crossland teaches a multi-monitor as discussed in claims 1, 4, and 6 above. However, Milner-Gouko-Crossland do not teach expressly the multi-

monitor further comprising a first wiring which connects the image signal output device with the first display device, and a second wiring which connects the image signal output device with the second display device. Fowler teaches a multi-monitor including a first display device 110 (the primary LCD 110) hinged mounted to base computer 100 (a base 100), and a second display device 111 (a hidden secondary LCD 111) (See FIGS. 9 and 10; and col. 4, lines 4-6). Fowler further teaches the use of a first wiring 109 (a ribbon wire 109) which connects the image signal output device 105 (a base 105) with a first display device 101 (a primary LCD 101) (See FIG. 8; col. 3, line 2, and lines 63-64), and a second wiring 127 (a connecting wire 127) which connects the image signal output device 100 with the second display device 111 (See FIG. 11; col. 4, lines 17-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the use of the first and the second wirings as taught by Fowler in the device of Gouko-Crossland because this would provide a convenient viewing screen capable of providing more flexibility and more freedom for moving the display devices for improving the operation efficiency of a computer system, and of a user (See Fowler; col. 1, lines 44-49; and col. 3, lines 61-67). Claim 7 is dependent upon claim 6, and is rejected on the same reasons set forth in claim 6, and by the rational discussed above.

14. Regarding claim 8, Gouko-Crossland teaches a multi-monitor as discussed in claims 1, 4, and 6 above. However, Gouko-Crossland do not teach expressly the multi-monitor further comprising a first wiring which connects the image signal output device with the first display device, and a second wiring which connects the first display device with the second display device. Fowler also teaches the use of a first wiring 109 (a connecting ribbon wire 109) which connects the image signal output device 105 (the base member or the base computer 105) with

the first display device **101** (the primary LCD 101), and a second wiring **116** (a connecting ribbon 116) which connects the first display device **101** with the second display device **120** (the side or secondary LCD 120). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the first and the second wirings connections as taught by Fowler in the device of Gouko-Crossland because this would provide a compact personal computer which has a plurality of displays panel so that the utility of a user of said computer is improved (See Gouko, Col. 1, lines 12-13, and lines 57-60). Claim 8 is dependent upon claim 6, and is rejected on the same reasons set forth in claim 6, and by the rational noted above.

Response to Arguments

15. Applicant's amendments to the claims 20-22 have overcome the rejections under 35 U.S.C. 112, second paragraph, recited in the prior Office action.

16. The applicants have correctly read the list of claims as "3, 9-10, 13, 15, and 17-24" instead of "3, 9-10, 15, 15, and 17-24". The examiner thanks the applicants for realizing the typographical error in said list of claims.

17. Applicant argues that applicant's invention provides a multi-monitor, an auxiliary monitor, or a monitor supporter using "only a single arm is needed to support the second display device rotatably about the first and second axes", the Amendment, page 9, second paragraph; whereas, the prior art, the Milner's invention fails to teach or suggest "the first support member includes an arm, and the arm is connected to both the second display device and the second support member", the Amendment, page 9, last three lines of the first paragraph; also, another prior art, the Gouko's invention, or the Crossland's invention, or Fowler's invention can not

remedy the defect of Milner. These arguments are not persuasive because: Firstly, in response to applicant's argument that the references fail to show certain feature of applicant's invention, it is noted that the features upon which applicant relies (i.e., "only a single arm is needed to support the second display device rotatably about the first and second axes") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993); secondly, the Milner's invention does teach: the first support member includes an arm 34, and the arm is connected to both the second display device 30 and the second support member as specifically pointed out in the rejection of claim 3 discussed above. Note: It's noted that "is directly connected" is different with "is connected". Lastly, the Gouko's invention, the Crossland's invention, Register's invention, and Fowler's invention are recited for other claimed limitations, e.g., a second display device having a display screen smaller than the first display device, claim 3, lines 3-4, or the same operating system, claim 4, line 2, etc., which are not as argued by the applicants, see the above rejections.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N. TRAN whose telephone number is (703) 308-8410. The examiner can normally be reached on Mon - Fri from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A. HJERPE, can be reached at (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for technology Center 2600 only)

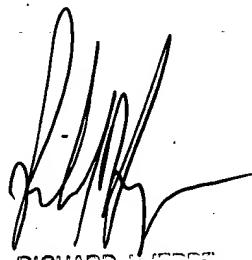
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2674

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office Whose telephone number is (703) 306-0377.

HENRY N. TRAN #1
Examiner
Art Unit 2674

hnt
October 28, 2003



RICHARD L. MIRELL
Supervisory Patent Examiner
TECHNOLOGY CENTER 2600
U.S. Patent and Trademark Office